

## Facility-Wide Communication System

### ABSTRACT OF THE INVENTION

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A method and system for communication within an  
5 energy-transmission-limited environment. RF transceivers  
throughout the site are located site-wide such that areas  
within the site in which communications are desired are  
within range of at least one of the RF transceivers. At  
each location RF transceivers are connected to a control  
10 unit. The control unit provides power to the transceivers  
and allows bi-directional communication of audio/voice  
and/or digital information. The control units may be  
networked to each other using standard network type  
category-5 or equivalent cables and may communicate to one  
15 another via the network connection. The control units may  
also be networked via an alternating current powerline by  
using an alternating current modem. The transceiver of the  
present invention utilizes single sideband modulators to  
modulate voice and/or digital signals. The signals are  
20 demodulated and filtered at a receiving end of the  
transceiver. A comb filter attenuates noisy signals with  
drifting harmonics.